

“I hereby declare that I have read this thesis and in my  
Opinion this thesis is sufficient in terms of scope and quality for the  
Award of the degree of Master of Science (Information Technology - Management)”

Signature :

Name of Supervisor : Madam Rasimah Che Mohd Yusoff

Date : February 2014

**PARENTAL ACCEPTANCE OF THE E-WARIS STUDENT INFORMATION  
SYSTEM**

**TANNAZ TAKAVAR**

A thesis submitted in fulfilment of the  
requirements for the award of the degree of  
Master of Science (IT Management)

Faculty of Advanced Informatics School  
Universiti Teknologi Malaysia

February 2014

I declare that this thesis entitled “*PARENTAL ACCEPTANCE OF THE E-WARIS STUDENT INFORMATION SYSTEM*” is the result of my own research except as cited in the references. The thesis has not been accepted for any degree and is not concurrently submitted in candidature of any other degree.

Signature : .....

Name : Tannaz Takavar

Date : February 2014

Especially dedicated to:

My beloved Father and Mother who have always supported and encouraged me in everything I have ever done and tried to keep me believing that anything is possible.

My two lovely sisters had encouraged me.

And

My Grandmother, who passed away from cancer, she always prayed for my success.

## **ACKNOWLEDGEMENT**

I wish to express my sincere appreciation to my thesis supervisor, Madam Rasimah Che Mohd Yusoff, whose encouragement, guidance, advice and support from the initial to the end level enabled me to develop an understanding of the subject. Without her guidance and persistent help, this dissertation would not have been possible. My special thanks to Sekolah Rendah Islam Al Amin, Keramat Kuala Lumpur, especially to the Headmistress, Puan Hajah Wardah binti Saari and also to the parents who participate in this research.

My deepest gratitude goes to my family for their unflagging love and support throughout my life. Besides, I am grateful to all my family members.

I am also indebted to many of my friends for their friendship and help for as long as I have known them and those people who supported me in any respect during the completion of the project.

## ABSTRACT

Many schools are adopting Student Information System (SIS) as a tool to communicate between parents and school. However, the implementation of any SIS will only be fully realized if parents possess positive attitudes towards using SIS. The purpose of this study is to identify the main factors that influence on parental acceptance on the SIS, namely E-WARIS system as a case study. E-WARIS system is the Student Information System which is currently used in Sekolah Rendah Islam Al-Amin, Keramat, Kuala Lumpur. The survey methodology using questionnaire was employed in this study, involving a sample of 76 parents of Sekolah Rendah Islam Al-Amin which was invited via the Sekolah Rendah Islam Al- Amin *yahoo* groups. The research model based on UTAUT model is developed which consist of eight constructs: Performance Expectancy, Effort Expectancy, Facilitating Conditions, Social Influence, Information Quality, System Flexibility, System Interactivity and Behavioural intention. Quantitative data was evaluated using SPSS mainly on Factor analysis; Pearson's correlation analysis and Multiple Linear regressions analysis to identify the significant variables which are effect to parental acceptance of the E-WARIS system. In general, the finding indicates that majority of parents accepted the E-WARIS system. The model contributes 46% of the variance to describe parental acceptance on the E-WARIS system.

## ABSTRAK

Kebanyakan sekolah menggunakan Sistem Maklumat Pelajar sebagai satu alat untuk berkomunikasi di antara pihak sekolah dan ibubapa pelajar. Walau bagaimanapun, pelaksanaan sebarang Sistem Maklumat Pelajar hanya berjaya sekiranya pihak ibu bapa mempunyai sikap yang positif terhadap Sistem Maklumat Pelajar tersebut. Tujuan kajian ini adalah untuk mengenal pasti faktor-faktor utama yang mempengaruhi penerimaan ibu bapa ke atas Sistem Maklumat Pelajar iaitu E-Waris, sebagai kajian kes. E-Waris merupakan Sistem Maklumat Pelajar yang kini digunakan dalam Sekolah Rendah Islam Al-Amin, Keramat, Kuala Lumpur. Metodologi secara tinjauan menggunakan instrumen soal selidik digunakan dalam kajian ini yang melibatkan sampel seramai 76 ibu bapa dari Sekolah Rendah Islam Al-Amin yang dikenalpasti menerusi kumpulan *yahoo* Sekolah Rendah Islam Al-Amin. Model kajian berdasarkan model UTAUT dibangunkan yang terdiri daripada 8 konstruk: Jangkaan Prestasi, Jangkaan Hasil, Kemudahan, Pengaruh Sosial, Maklumat Kualiti, Keanjalan Sistem dan Keinginan Mengguna. Data kuantitatif dinilai menggunakan SPSS secara Analisis Factor, Korelasi Pearson dan Korelasi Regresi Pelbagai bagi mengenal pasti pemboleh ubah yang memberi kesan ke atas penerimaan ibu bapa terhadap sistem E-WARIS. Secara umum, hasil kajian menunjukkan majoriti ibu bapa menerima sistem E-WARIS. Model kajian menyumbang 46% varian untuk menerangkan penerimaan ibu bapa ke atas sistem E-WARIS.

## TABLE OF CONTENTS

CHAPTER	TITLE	PAGE
	DECLARATION	ii
	DEDICATION	iii
	ACKNOWLEDGEMENTS	iv
	ABSTRACT	v
	ABSTRAK	vi
	TABLE OF CONTENTS	vii
	LIST OF TABLES	xii
	LIST OF FIGURES	xiv
	LIST OF APPENDICES	xv
 1	 INTRODUCTION	
	1.1 Introduction	1
	1.2 Background of the Problem	2
	1.3 Problem Statement	3
	1.4 Research Question	3
	1.5 Research Objective	4
	1.6 Research Scope	4
	1.7 Significance of Study	4
	1.8 Summary	5
 2	 LITERATURE REVIEW	



2.1	Introduction	6
2.2	Student Information System	8
2.2.1	Student Information System in Malaysia	9
2.2.2	Functionality of Student Information System	13
2.3	Parental Acceptance in related area	14
2.3.1	Digital Game Based Learning	14
2.3.2	Social Networking Sites	14
2.3.3	E-Learning	15
2.4	Information Technology Acceptance Model	15
2.4.1	Innovation Diffusion Theory (IDT)	16
2.4.2	Theory of Reasoned Action (TRA)	17
2.4.3	Theory of Planned Behavior (TPB)	19
2.4.4	Social Cognitive Theory (SCT)	21
2.4.5	Technology Acceptance Model (TAM)	21
2.4.6	Decomposed Theory of Planned Behavior (DTPB)	23
2.4.7	Combined TAM and TPB (C-TAM-TPB)	24
2.4.8	Extension of Technology Acceptance Model (TAM2)	26
2.4.9	Unified Theory of Acceptance and Use of Technology (UTAUT)	27
2.4.10	Summary of Models	28
2.5	Overview of the E-WARIS system	30
2.6	Summary	33
<b>3</b>	<b>RESEARCH METHODOLOGY</b>	
3.1	Introduction	34
3.2	Preliminary Finding	34
3.3	Research Procedure	36
3.4	Justification of Research procedure	39
3.5	Justification for Proposed Research Model	39
3.6	Research Hypothesis	45
3.6.1	Information Quality	45
3.6.2	System Interactivity	45
3.6.3	Facilitating Conditions	46

3.6.4	Effort Expectancy	46
3.6.5	Performance Expectancy	46
3.6.6	Social Influence	47
3.6.7	System Flexibility	47
3.7	Target Population for Real Study	48
3.8	Quantitative Case Study	49
3.9	Questionnaire design	50
3.10	Content validity	51
3.11	Pilot Study	51
3.12	Main study of the Survey	52
3.13	Data Collection	52
3.14	Data Analysis Techniques	52
3.14.1	Descriptive Statistic	53
3.14.2	Reliability Analysis	53
3.14.3	Factor Analysis	54
3.14.4	Pearson's Correlation Analysis	54
3.14.5	Multiple Linear Regression Analysis	55
3.15	Summary	55

## **4 DATA ANALYSIS**

4.1	Introduction	56
4.2	Scale Measurement	56
4.3	Reliability Test of the Questionnaire	57
4.4	Demographics Profile of Respondents	59
4.5	Analyze Frequency of Variables	60
4.5.1	Effort Expectancy	61
4.5.2	Performance Expectancy	61
4.5.3	Behavioral Intention	62
4.5.4	Social Influence	64
4.5.5	Facilitating Conditions	64
4.5.6	System Interactivity	65
4.5.7	Information Quality	66
4.5.8	System Flexibility	67
4.5.9	Respondent's Suggestions	68

4.6	Factor Analysis	69
4.7	Pearson's Correlation Analysis	70
4.7.1	Correlation between Behavioral Intention and Effort Expectancy	70
4.7.2	Correlation between Behavioral Intention and Performance Expectancy	71
4.7.3	Correlation between Behavioral Intention and Social Influence	72
4.7.4	Correlation between Behavioral Intention and Facilitating Conditions	73
4.7.5	Correlation between Behavioral Intention and Information Quality	73
4.7.6	Correlation between Behavioral Intention and System Flexibility	74
4.7.7	Correlation between System Interactivity and Effort Expectancy	75
4.7.8	Correlation between System Interactivity and Performance Expectancy	75
4.8	Multiple Linear Regressions Analysis	76
4.9	Discussion of Major Findings	80
4.9.1	Information Quality	81
4.9.2	System Interactivity	81
4.9.3	Facilitating Conditions	83
4.9.4	Effort Expectancy	84
4.9.5	Performance Expectancy	84
4.9.6	Social Influence	85
4.9.7	System Flexibility	86
4.10	Hypothesis Testing	87
4.11	Summary	88
<b>5</b>	<b>DISCUSSION AND CONCLUSION</b>	
5.1	Introduction	89
5.2	Research Achievements	90
5.3	Research Contribution	91

5.4	Limitation of Study	93
5.5	Future Work of Study	93
5.6	Summary	94
	<b>REFERENCES</b>	95
	<b>APPENDIX</b>	99

## LIST OF TABLES

TABLE NO.	TITLE	PAGE
2.1	Summary of Acceptance Models	28
2.2	Overview of the E-WARIS system	31
3.1	Research Procedure Description	38
3.2	Performance Expectancy	41
3.3	Effort Expectancy	41
3.4	Facilitating Conditions	42
3.5	Social Influence	42
3.6	Behavioural Intention	43
3.7	Information Quality	43
3.8	System Flexibility	44
3.9	System Interactivity	44
4.1	Cronbach's Alpha coefficient size	57
4.2	Reliability Statistics	58
4.3	Summary of Reliability Statistics of main variable	58
4.4	Gender Frequency	59
4.5	Age Frequency	59
4.6	Education Frequency	60
4.7	Descriptive statistics for effort expectancy	61
4.8	Descriptive statistics for performance expectancy	62
4.9	Descriptive statistics for behavioural intention	63
4.10	Descriptive statistics for social influence	64
4.11	Descriptive statistics for facilitating conditions	65
4.12	Descriptive statistics for system interactivity	66
4.13	Descriptive statistics for information quality	67

4.14	Descriptive statistics for system flexibility	68
4.15	KMO and Bartlett's test	69
4.16	Behavioural Intention and Effort Expectancy correlation	71
4.17	Behavioural Intention and Performance Expectancy correlation	71
4.18	Behavioural Intention and Social Influence correlation	72
4.19	Behavioural Intention and Facilitating conditions correlation	73
4.20	Behavioural Intention and Information Quality correlation	74
4.21	Behavioural Intention and System Flexibility correlation	74
4.22	System Interactivity and Effort Expectancy correlation	75
4.23	System Interactivity and Performance Expectancy correlation	76
4.24	Model Summary	77
4.25	ANOVA	77
4.26	Coefficients	78
4.27	Summary table of information quality and behavioural intention	81
4.28	Summary table of effort expectancy and system interactivity	82
4.29	Summary table of performance expectancy and system interactivity	83
4.30	Summary table of facilitating conditions and behavioural intention	83
4.31	Summary table of effort expectancy and behavioural intention	84
4.32	Summary table of performance expectancy and behavioural intention	85
4.33	Summary table of social influence and behavioural intention	86
4.34	Summary table of system flexibility and behavioural intention	86
4.35	Hypothesis Summary	87

## LIST OF FIGURE

FIGURE NO.	TITLE	PAGE
2.1	Research related area	7
2.2	Smart school management system	10
2.3	Innovation of Diffusion Theory	17
2.4	Theory of reasoned action model	18
2.5	Complete TRA model diagram	19
2.6	Theory of planned behavior model	20
2.7	Social cognitive theory	21
2.8	Technology acceptance model	23
2.9	Decomposed theory of planned behavior	24
2.10	C-TAM-TPB model	25
2.11	Extension of Technology acceptance model (TAM2)	26
2.12	UTAUT diagram	27
3.1	Research Procedure	37
3.2	Proposed model	40
3.3	Hypothesis proposed model	48
4.1	Research model according to hypothesis values	79
4.2	Research model according to multiple linear regression analysis	80

**LIST OF APPENDICES**

<b>APPENDIX</b>	<b>TITLE</b>	<b>PAGE</b>
A	Interview with headmistress of Al-Amin school	99
B	Interview with parents	100
C	Questionnaire	101
D	Questionnaire's Items citation	104
E	List of Experts	108





## **CHAPTER 1**

### **INTRODUCTION**

#### **1.1 Introduction**

Parents and schools have an important role in the education of children. Educating children is the investment in all countries and many countries encourage parents to involve in school management. Participating parents in school management prepare the easier way to communicate between parents and school to improve the performance of children's education. To improve the quality of education parents and school must be cooperate together to decrease the misunderstandings and parents must keep in touch with teachers frequently (Ho, L.-H., *et al*, 2013).

To monitor student's performance, parents must be informed about their child's affairs. Informing parents on time and frequently can be done by Information Technology. By Information Technology and using the e-communication way instead of traditional paper communication encourage parents and school to adopt with a new method and used in their daily work lives.

The initial objective of Student Information System is to support learning and teaching operation by managing process and resources more effectively and efficiently (Blueprint, A. C.,1997). The Student Information System is the best way to record student's data and send all of them to parents to inform parents about the educational process (Ho, L.-H., *et al*, 2013).

Therefore, this research explains the Student Information System and also the factors that affect the parent's behaviour in accepting Student Information System.

## **1.2 Background of the Problem**

Controlling children from childhood until they go to school is an important factor for parents. But modern life makes parent less able to involve in their children's activities at school. Parents need to know what happened at school, and school must to inform parents about the results of exams, facilitate the payment fees, and etc.

Therefore, because of lacking time, parents in their personal life, always there is a gap between parents and schools relationship. Information Technology has a significant role in facilitate and solve this problem. Student Information System has been used as a tool to communicate between parents and school. Many Malaysian schools already use the Student Information system to facilitate the communication of parents and school and also managing the student's data become easier. Sekolah Rendah Islam Al-Amin, Keramat, Kuala Lumpur is a private Malaysian school uses the Student Information System called E-WARIS. This system was developed to create for better communication between school and parents which able parents to get information relates to their children. Parents can use the E-WARIS to register their children, viewing attendance via online. This research has been conducted to

evaluate the parental acceptance of the E-WARIS system in order to understand the factors that influence their intention to use Student Information system such as E-WARIS.

### **1.3 Problem Statement**

The use of Student Information System to improve communication between parents and schools has significantly increased in Malaysia. However, resistance to new uses of technology such as Student Information System by parents worldwide remains high. Sekolah Rendah Islam Al-Amin, Keramat, Kuala Lumpur using E-WARIS, a Student Information System which enable parents to access child's grades, attendance, and other important information online. Result from the preliminary study revealed that some parents resist using E-WARIS Student Information System due for some reasons.

### **1.4 Research Question**

- What are the factors that affect the parental acceptance of the E-WARIS system?
- What is the model for parental acceptance of the E-WARIS system?
- What is the result of parental acceptance of the E-WARIS system?

## **1.5 Research Objectives**

- To identify the factors that affect parental acceptance of the E-WARIS system.
- To propose a model for parental acceptance of the E-WARIS system.
- To evaluate the model for parental acceptance of the E-WARIS system.

## **1.6 Research Scope**

The Student Information System tested on E-WARIS for the Sekolah Rendah Islam Al-Amin, Keramat, Kuala Lumpur will be evaluated. Respondent of this research are parents who are used the E-WARIS system and are joined in the Yahoo Groups of the Sekolah Rendah Islam Al-Amin Keramat, Kuala Lumpur.

## **1.7 Significance of study**

The significant of this research is about evaluating parental acceptance on the E-WARIS Student Information System in order to understand whether Student Information System is useful and accepted by parents. The finding of this research will be beneficial to school and system developer.

## **1.8 Summary**

This chapter identified the background of the problem, problem statements, research objectives, research questions of the study and specified the scope of the research.

## REFERENCES

- Ajzen, I. (1991). The Theory of Planned Behavior. *Organizational Behavior and Human decision processes* (Vol. 211, pp. 179–211).
- Alzahrani, M. E., & Goodwin, R. D. (2012). Towards a UTAUT-based Model for the Study of E- Government Citizen Acceptance in Saudi Arabia. *World Academy of Science, Engineering and Technology*, 64, 8–14.
- Bardus, M. (2012). Theory of Planned Behaviour, Participation, and Physical Activity Communication in the Workplace.
- Bertram, D. (2009). *Likert Scales* (p. 11).
- Birch, a., & Irvine, V. (2009). Preservice teachers' acceptance of ICT integration in the classroom: applying the UTAUT model. *Educational Media International*, 46(4), 295–315. doi:10.1080/09523980903387506
- Blueprint, A. C. (n.d.). The Malaysian Smart School.
- Bourgonjon, J., Valcke, M., Soetaert, R., De Wever, B., & Schellens, T. (2011). Parental acceptance of digital game-based learning. *Computers & Education*, 57(1), 1434–1444. doi:10.1016/j.compedu.2010.12.012
- C.Wayman, D. J. (2007). Student Data system for School Improvement: The State of the Field. *Educational Technology Research Symposium*, 1, 156–162.
- Chen, K.-Y., & Chang, M.-L. (2013). User acceptance of “near field communication” mobile phone service: an investigation based on the “unified theory of acceptance and use of technology” model. *The Service Industries Journal*, 33(6), 609–623. doi:10.1080/02642069.2011.622369
- Chen, M.-F., & Tung, P.-J. (2014). Developing an extended Theory of Planned Behavior model to predict consumers' intention to visit green hotels. *International Journal of Hospitality Management*, 36, 221–230. doi:10.1016/j.ijhm.2013.09.006
- Cho, J. C. W. and V. (2008). *Tenets of an Effective Data Initiative*.
- Choi, G., & Chung, H. (2013). Applying the Technology Acceptance Model to Social Networking Sites (SNS): Impact of Subjective Norm and Social Capital on the Acceptance of SNS. *International Journal of Human-Computer Interaction*, 29(10), 619–628. doi:10.1080/10447318.2012.756333
- Chuttur, M. (2009). Working Papers on Information Systems Overview of the Technology Acceptance Model : Origins , Developments and Future Directions. *Sprouts*, 9(2009), 23.

- Cortina, J. M. (1993). What is Coefficient Alpha? An Examination of Theory and Applications. *Journal of Applied Psychology*, 78, 1–7.
- Gay, A. (2006). Descriptive Statistics. *Quantitative Research* (p. 23).
- Ghalandari, K. (2012). The Effect of Performance Expectancy , Effort Expectancy , Social Influence and Facilitating Conditions on Acceptance of E-Banking Services in Iran : the Moderating Role of Age and Gender. *Middle-East Journal of Scientific Research*, 12(6), 801–807. doi:10.5829/idosi.mejsr.2012.12.6.2536
- Gerring, J. (2006). Techniques for Choosing Cases. *Case Study Research: Principles and Practices*. CAMBRIDGE University PRESS.
- Haghshenas, H., Chatroudi, E. A., & Njeje, F. A. (2012). Does educational level matter in adopting online education? A Malaysian perspective. *Journal of Marketing for Higher Education*, 22(1), 117–151. doi:10.1080/08841241.2012.705798
- Ho, L.-H., Hung, C.-L., & Chen, H.-C. (2013). Using theoretical models to examine the acceptance behavior of mobile phone messaging to enhance parent–teacher interactions. *Computers & Education*, 61, 105–114. doi:10.1016/j.compedu.2012.09.009
- IBM. (2010). *IBM SPSS Statistics Base 19* (p. 330).
- Jerold L. Hale, Brian J. Householder, K. L. G. (2004). The Theory of Reasoned Action. *Theories of Persuasion*.
- Kitchenham, B., & Pfleeger, S. L. (2002). Principles of Survey Research Part 5 : Populations and Samples. *Software Engineering*, 27(5), 17–20.
- Kripanont, N. (2007). Examining a Technology Acceptance Model of Internet Usage by Academics within Thai Business Schools.
- Lai, I. K. W., & Lai, D. C. F. (2013). User acceptance of mobile commerce: an empirical study in Macau. *International Journal of Systems Science*, (November), 1–11. doi:10.1080/00207721.2012.761471
- Lee, Yi-Hsuan, Yi-Chuan Hsieh, Hsu, and C.-N. (2011). Adding Innovation Diffusion Theory to the Technology Acceptance Model : Supporting Employees ' Intentions to use E-Learning Systems E-learning and TAM The Technology Acceptance Model ( TAM ). *Educational Technology & Society*, 14, 124–137.
- Lin, S., Zimmer, J. C., & Lee, V. (2013). Podcasting acceptance on campus: The differing perspectives of teachers and students. *Computers & Education*, 68, 416–428. doi:10.1016/j.compedu.2013.06.003
- Malhotra, N. K. (2006). QUESTIONNAIRE DESIGN AND SCALE DEVELOPMENT. *Georgia Institute of Technology*, 176–202.



- Ngoma, S. (2009). *AN EXPLORATION OF THE EFFECTIVENESS OF SIS IN MANAGING STUDENT*.
- Odyssey, E. (2005). *The smart school* (Vol. 6, pp. 1–60).
- Pahor, M. (2011). Principal component analysis. *PCA and Factor Analysis* (p. 21).
- Park, S. Y. (2009). An Analysis of the Technology Acceptance Model in Understanding University Students' Behavioral Intention to Use e-Learning Research hypotheses. *Educational Technology & Society*, 12, 150–162.
- Pérez-Vicente, S., & Expósito Ruiz, M. (2006). Descriptive statistics. *Allergologia et immunopathologia*, 37(6), 314–20. doi:10.1016/j.aller.2009.10.005
- Rajapakse, J. (2000). Extending the Unified Theory of Acceptance and Use of Technology ( UTAUT ) Model.
- Robert J. Vallerand, Paul Deshaies and Jean-Pierre Cuerrier, Luc G. Pelletier, C. M. (1992). Ajzen and Fishbein's Theory of Reasoned Action as Applied to Moral Behavior: A Confirmatory Analysis. *Journal of Personality and Social Psychology*, 62.
- Robinson, L. (2009). *A summary of Innovations*.
- Safeena, R., Date, H., Hundewale, N., & Kammani, A. (2013). Combination of TAM and TPB in Internet Banking Adoption. *International Journal of Computer Theory and Engineering*, 5(1), 146–150. doi:10.7763/IJCTE.2013.V5.665
- Shish-Chih Chen, Shing-Han Li, C.-Y. L. (2011). Recent Related Research in Technology Acceptance Model. *Australian Journal of Business and Management Research*, 1(9), 124–127.
- Shroff, R. H., Deneen, C. C., & Ng, E. M. W. (2011). Analysis of the technology acceptance model in examining students' behavioural intention to use an e-portfolio system. *Australasian Journal of Educational Technology*, 27(4), 600–618.
- Simon, M. . (2011). Conducting Pilot Studies.
- Slatten, L. A. D. (2010). An Application and Extension of the Technology Acceptance Model to Nonprofit Certification. *Journal of Nonprofit Management*, 14, 1–9.
- Tavakol, M., & Dennick, R. (2011). Making sense of Cronbach's alpha. *International Journal of Medical Education*, 2, 53–55. doi:10.5116/ijme.4dfb.8dfd
- Taylor-powell, E. (1998). Questionnaire Design : Asking questions with a purpose. *Program Development and Evaluation*, (May).

- Taylor-powell, E. (1996). Collecting Evaluation Data : An Overview of Sources and Methods. *Program Development and Evaluation*, (June).
- Teo, T., & Noyes, J. (2014). Explaining the intention to use technology among pre-service teachers: a multi-group analysis of the Unified Theory of Acceptance and Use of Technology. *Interactive Learning Environments*, 22(1), 51–66. doi:10.1080/10494820.2011.641674
- Timmerman, M. E. (2005). Factor analysis.
- Turner, M., Kitchenham, B., Brereton, P., Charters, S., & Budgen, D. (2010). Does the technology acceptance model predict actual use? A systematic literature review. *Information and Software Technology*, 52(5), 463–479. doi:10.1016/j.infsof.2009.11.005
- University, B. (2003). Effective Learning Service Introduction to Research and Research Methods.
- Venkatesh, V. (2012). C ONSUMER A CCEPTANCE AND U SE OF I NFORMATION T ECHNOLOGY : E XTENDING THE U NIFIED T HEORY. *MisQuarterly*, 36(1), 157–178.
- Venkatesh, V., & Davis, F. D. (2000). A Theoretical Extension of the Technology Acceptance Model: Four Longitudinal Field Studies. *Management Science*, 46(2), 186–204. doi:10.1287/mnsc.46.2.186.11926
- Wayman, J. C. (2006). Technology-Supported Involvement of Entire Faculties in Examination of Student Data for Instructional Improvement. *American Journal of Education* 112, 112(August).
- Williams, C. (2007). Research Methods. *Journal of Business & Economic Research*, 5(3), 65–72.
- Wu, Y.-L., Tao, Y.-H., & Yang, P.-C. (2008). The use of unified theory of acceptance and use of technology to confer the behavioral model of 3G mobile telecommunication users. *Journal of Statistics and Management Systems*, 11(5), 919–949. doi:10.1080/09720510.2008.10701351
- Yahya, M., Nadzar, F., & Rahman, B. A. (2012). Examining user Acceptance of E-Syariah Portal Among Syariah users in Malaysia. *Procedia - Social and Behavioral Sciences*, 67(November 2011), 349–359. doi:10.1016/j.sbspro.2012.11.338